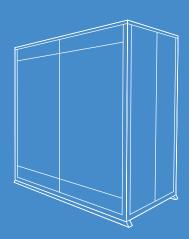






KELVIN Clim CIZ PF

Cooling Capacity: 12 ~ 154 kW













Air cooled condensers equipped with plug fan

KELVIN AIR CONDITIONING

KELVIN Clim C12 PF

KELVIN CLIM C12 PF: Air cooled condensers equipped with plug fan

Capacity: 12 ~ 154 kW





KELVIN AIR CONDITIONING















MAIN FEATURES

- · Air cooled condensers.
- 14 models available, for a wide selection opportunity.
- Average step of 10kW.
- · Multi-refrigerant charge.
- Supplied with seal charge.
- EC Plug-fan.
- Horizontal/Vertical air flow.
- Suitable for indoor installation.

MAIN BENEFITS

- Designed for the perfect match with KELVIN motoevaporating units.
- EC Plug fan for a high efficiency.
- Availability of machine for the reduction and the extreme reduction of the
- · Availability of horizontal and vertical air delivery. To change air delivery mode it's simply required the change of position of a single panel.
- · Easily of maintenance.
- Eurovent Certification.(pending)

FANS WITH BRUSHLESS TYPE EC MOTOR

The fans electric motors are the brushless type with built-in electronic commutation system (EC) which yield high energy savings during operation in reduced air flow.

These electric motors are ensuring high performances, minimum energy consumption and total absence of electromagnetic noise

INDOOR INSTALLATION

The machines are designed for indoor installation and ducting for air suction and discharge.

For outdoor installation the use of the dedicated optional kit is mandatory. The machine must be installed under a cover or anyway protected against atmospherics agent.

T 11

T 14

T 17



R407A





MAIN COMPONENTS

FRAMEWORK

- Base, self supporting frame and panelling in steel plate with protective surfaces treatment in compliance with UNI ISO 9227/ASTMB117 and ISO 7253, and painted with epoxy powders.
- · Colour: RAL 9002.

FANS SECTION

- · Centrifugal fans with backward curved blades with wing profile, single suction and without scroll housings (Plug-fan).
- Brushless type synchronous EC motor with integrated electronic commutated system and continuous variation of the rotation speed. The motor rotation control is obtained with the EC system (Electronic Commutation) that manage the motor according to the 0~10V proportional signal coming from the internal unit microprocessor control.
- · Maintenance-free bearings
- IP54 enclosure class.

AIR/GAS HEAT EXCHANGERS

- Heat exchanger coil with internally corrugated copper tubes and high efficiency aluminium fins, specifically developed to provide high heat transfer and lower pressure drops. The combination of two factors, special tubes and fins, allow to optimally combine the following aspects:
- Maximum capacity relative to the size of the exchanger,
- Minimum charge of refrigerant,
- Reduction of the air flow required for the heat exchange.
- Frame in galvanized steel.

KELVIN Clim C12 PE

REFRIGERANT CIRCUIT

· Valves on gas and liquid line for coupling to refrigerant pipe. The valves are supplied not installed. The condenser is supplied with nitrogen seal.

ELECTRICAL PANEL

In accordance with EN60204-1 norms, suitable for outdoor installation, IP54 enclosure class, complete with:

· Terminals for power supply (from network).

T 21

T 24

T 33

T 38

T 44

- 380-480/3/50-60 for models "T".
- Terminals for 0~10V signal for condensing control system (connect to indoor machine).
- Terminals for alarm signal (connect to indoor machine).

TECHNICAL DATA KELVIN Clim C12 PF

| | KELVIN Clim C12 PF | | T 11 | T 14 | T 17 | T 21 | T 24 | T 33 | T 38 | T 44 |
|-------------|------------------------------------------------------------------------------------------------------|---------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | Capacity (1) | | | | | | | | | |
| | With refrigerant charge R410A | kW | 12,1 | 15,6 | 18,2 | 21,6 | 25,0 | 35,1 | 39,8 | 46,5 |
| | With refrigerant charge R407C | kW | 12,0 | 15,6 | 18,2 | 21,6 | 25,0 | 35,1 | 39,8 | 46,5 |
| | With refrigerant charge R134a | kW | 11,7 | 15,3 | 17,9 | 21,3 | 24,7 | 34,7 | 39,3 | 46,0 |
| | Unit power input | kW | 0.4 | 0.4 | 0.5 | 0,5 | 0,6 | 1,3 | 1,1 | 1,2 |
| | Plug-fans | n. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Total air flow | m³/h | 4900 | 4900 | 4900 | 4900 | 6400 | 8000 | 10000 | 10000 |
| | Available static pressure | Pa | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| DARD | Max available static pressure Air circuits Total refrigerant charge (optional excluded) Gas circuits | Pa | 375 | 350 | 332 | 290 | 748 | 474 | 298 | 268 |
| | Air circuits | n. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Z | Total refrigerant charge (optional excluded) | kg | 0,8 | 1,2 | 1,7 | 2,6 | 2,5 | 3,8 | 4,3 | 6,4 |
| ST | Gas circuits | n. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Power supply | V/Ph/Hz | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 |
| | Max unit operating current (FLA) | Α | 1,6 | 1,6 | 1,6 | 1,6 | 4,3 | 4,3 | 3,6 | 3,6 |
| | Sound power level [Lw] (2) | dB(A) | 76,2 | 76,2 | 76,1 | 76,1 | 82,5 | 87,4 | 86,6 | 86,8 |
| | Average sound pressure level [Lpm] (3) | dB(A) | 61,6 | 61,6 | 61,5 | 61,5 | 67,1 | 72,0 | 71,1 | 71,3 |
| | Net weight | kg | 143 | 148 | 153 | 163 | 210 | 222 | 284 | 310 |
| | Refrigerant connections | | | | | | | | | |
| | Liquid line – ODS | Ø mm | 16 | 16 | 16 | 16 | 18 | 18 | 18 | 18 |
| | Gas line – ODS | Ø mm | 18 | 18 | 22 | 22 | 22 | 22 | 22 | 22 |
| | Capacity (1) | | | | | | | | | |
| MATE PF LNO | With refrigerant charge R410A | kW | 10,8 | 13,7 | 15,9 | 18,8 | 21,6 | 30,2 | 34,5 | 40,1 |
| | With refrigerant charge R407C | kW | 10,5 | 13,7 | 15,9 | 18,8 | 21,6 | 30,2 | 34,5 | 40,1 |
| | With refrigerant charge R134a | kW | 10,2 | 13,3 | 15,5 | 18,4 | 21,0 | 29,4 | 33,7 | 39,3 |
| | Unit power input | kW | 0,3 | 0,3 | 0,3 | 0,3 | 0,4 | 0,8 | 0,7 | 0,8 |
| Ξ | Total air flow | m³/h | 4165 | 4165 | 4165 | 4165 | 5440 | 6800 | 8500 | 8500 |
| TEAM | Available static pressure | Pa | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| 쁜 | Sound power level [Lw] (2) | dB(A) | 72,3 | 72,3 | 72,2 | 72,2 | 78,6 | 83,5 | 82,7 | 82,9 |
| | Average sound pressure level [Lpm] (3) | dB(A) | 57,7 | 57,7 | 57,6 | 57,6 | 63,2 | 68,1 | 67,2 | 67,4 |
| E PF ELN | Capacity (1) | | | | | | | | | |
| | With refrigerant charge R410A | kW | 9,5 | 11,9 | 13,7 | 16,0 | 18,7 | 25,8 | 29,7 | 34,0 |
| | With refrigerant charge R407C | kW | 9,3 | 11,9 | 13,7 | 16,0 | 18,7 | 25,8 | 29,7 | 34,0 |
| | With refrigerant charge R134a | kW | 9,1 | 11,6 | 13,4 | 15,7 | 18,2 | 25,2 | 29,1 | 33,5 |
| MATE | Unit power input | kW | 0,2 | 0,2 | 0,2 | 0,2 | 0,3 | 0,5 | 0,5 | 0,5 |
| Š | Total air flow | m³/h | 3430 | 3430 | 3430 | 3430 | 4480 | 5600 | 7000 | 7000 |
| TEAM | Available static pressure | Pa | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| 世 | Sound power level [Lw] (2) | dB(A) | 67,6 | 67,6 | 67,5 | 67,5 | 73,9 | 78,8 | 78,1 | 78,3 |
| | Average sound pressure level [Lpm] (3) | dB(A) | 53,1 | 53,1 | 53,0 | 53,0 | 58,6 | 63,5 | 62,6 | 62,8 |

- 1. Referred to condensation temperature 50°C; ambient temperature 35°C.
- 2. Sound power level [Lw] according to ISO EN 9614 2.
- 3. Average sound pressure level [LPm] 1m far according to ISO EN 3744.



TECHNICAL DATA KELVIN Clim C12 PF

| _ | KELVIN Clim C12 PF | | T 58 | T 69 | T 86 | T108 | T114 | T144 | _ |
|----------|----------------------------------------------|-------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|---|
| | Capacity (1) | | | | | | | | |
| | With refrigerant charge R410A | kW | 62,0 | 73,1 | 91,0 | 113,0 | 122,0 | 154,0 | |
| | With refrigerant charge R407C | kW | 62,0 | 73,1 | 91,0 | 113,0 | 122,0 | 154,0 | |
| | With refrigerant charge R134a | kW | 61,2 | 72,4 | 89,9 | 111,0 | 121,0 | 152,0 | |
| | Unit power input | kW | 2,2 | 2,4 | 3,3 | 4,7 | 5,6 | 7,4 | |
| | Plug-fans | n. | 2 | 2 | 3 | 3 | 3 | 4 | |
| | Total air flow | m³/h | 16000 | 16000 | 24000 | 32000 | 28000 | 36000 | |
| | Available static pressure | Pa | 50 | 50 | 50 | 50 | 50 | 50 | Ī |
| 8 | Max available static pressure | Pa | 552 | 512 | 542 | 515 | 204 | 237 | |
| STANDARD | Air circuits | n. | 1 | 1 | 1 | 1 | 1 | 1 | Ī |
| 뷯 | Total refrigerant charge (optional excluded) | kg | 5.9 | 8.8 | 10.2 | 10.3 | 9.4 | 14.0 | |
| 2 | Gas circuits | n. | 1 | 1 | 1 | 1 | 1 | 1 | İ |
| | Power supply | | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | 380-480/3/50-60 | |
| | Max unit operating current (FLA) | Α | 8,6 | 8,6 | 12,9 | 17,2 | 12,9 | 17,2 | Ī |
| | Sound power level [Lw] (2) | dB(A) | 93,4 | 93.5 | 96,9 | 98.7 | 100,3 | 101,4 | |
| | Average sound pressure level [Lpm] (3) | dB(A) | 77,3 | 77,4 | 80,3 | 81,8 | 83,7 | 84,5 | |
| | Net weight | kg | 387 | 421 | 515 | 625 | 557 | 673 | |
| | Refrigerant connections | | | | | | | | |
| | Liquid line – ODS | Ø mm | 22 | 22 | 22 | 22 | 22 | 28 | |
| | Gas line – ODS | Ø mm | 35 | 35 | 35 | 35 | 35 | 35 | |
| | Capacity (1) | | | | | | | | |
| 2 | With refrigerant charge R410A | kW | | | | | | | |
| 5 | With refrigerant charge R407C | kW | 53.4 | 62.7 | 78,6 | 98,9 | 105.0 | 131.0 | |
| 가 S | With refrigerant charge R134a | kW | 51,8 | 61,3 | 76,2 | 96,2 | 102,0 | 127,0 | |
| Щ | Unit power input | kW | 1.4 | 1.5 | 2.2 | 3.0 | 3,6 | 4.7 | |
| MATE | Total air flow | m³/h | 13600 | 13600 | 20400 | 27200 | 23800 | 30600 | |
| ₹ | Available static pressure | Pa | 36 | 36 | 36 | 36 | 36 | 36 | |
| TEAM | Sound power level [Lw] (2) | dB(A) | 89,5 | 89,6 | 93,0 | 94,8 | 96,4 | 97,5 | |
| _ | Average sound pressure level [Lpm] (3) | dB(A) | 73,4 | 73,5 | 76,4 | 77,9 | 79,8 | 80,6 | |
| | Capacity (1) | | | | | | | | Ī |
| I I | With refrigerant charge R410A | kW | 46,2 | 53,4 | 68,1 | 85,9 | 89,8 | 113,0 | |
| Ш | With refrigerant charge R407C | kW | 46,2 | 53,4 | 68,1 | 85,9 | 89,8 | 113,0 | |
| <u>+</u> | With refrigerant charge R134a | kW | 45.0 | 52.4 | 66,4 | 83.8 | 87.9 | 110,0 | |
| MATE | Unit power input | kW | 0,8 | 0.9 | 1,3 | 1,8 | 2,1 | 2,8 | |
| È | Total air flow | m³/h | 11200 | 11200 | 16800 | 22400 | 19600 | 25200 | |
| ₹ | Available static pressure | Pa | 25 | 25 | 25 | 25 | 25 | 25 | |
| TEAM | Sound power level [Lw] (2) | dB(A) | 84,8 | 84,9 | 88,3 | 90,2 | 91,7 | 92,9 | |
| | Average sound pressure level [Lpm] (3) | dB(A) | 68,8 | 68,9 | 71,8 | 73,3 | 75,2 | 76,0 | |
| | | | | | | | | | |

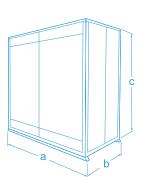
- Referred to condensation temperature 50°C; ambient temperature 35°C.
 Sound power level [Lw] according to ISO EN 9614 2.
 Average sound pressure level [LPm] 1m far according to ISO EN 3744.

Kelvin air conditioning KELVIN Clim C12 PF

DIMENSIONS (mm)

| KELVIN Clim C12 PF | | | | | | | | |
|--------------------|------|-----|------|--|--|--|--|--|
| | a | b | С | | | | | |
| T 11 | 890 | 880 | 900 | | | | | |
| T 14 | 890 | 880 | 900 | | | | | |
| T 17 | 890 | 880 | 900 | | | | | |
| T 21 | 890 | 880 | 900 | | | | | |
| T 24 | 1190 | 880 | 900 | | | | | |
| T 33 | 1190 | 880 | 900 | | | | | |
| T 38 | 1390 | 880 | 1300 | | | | | |
| T 44 | 1390 | 880 | 1300 | | | | | |
| T 58 | 1840 | 880 | 1300 | | | | | |
| T 69 | 1840 | 880 | 1300 | | | | | |
| T 86 | 2290 | 880 | 1300 | | | | | |
| T108 | 1840 | 880 | 1800 | | | | | |
| T114 | 2290 | 880 | 1300 | | | | | |
| T144 | 1840 | 880 | 1800 | | | | | |





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